

Hewitt Landfill
7245 - 7361 Laurel Canyon Rd., North Hollywood, CA 91605
Facility Summary Memorandum

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Report Attachment 1	Hewitt Landfill Groundwater Data
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Acronyms and Abbreviations

1,1,1-TCA	1,1,1-trichloroethane
1,1-DCA	1-1-dichloroethane
Cl	chloride
COCs	constituents of concern
ConRock	Consolidated Rock Products
ft	foot or feet
ft bgs	feet below ground surface
HCO ₃	bicarbonate
IAA	Insurance Auto Auction
LADWP	Los Angeles Department of Water and Power
LCH	Laurel Canyon Holdings
NHOU	North Hollywood Operable Unit
PCE	tetrachloroethene
ppm	parts per million
RWQCB	California Regional Water Quality Control Board, Los Angeles Region
SFV	San Fernando Valley
SWAT	Solid Waste Assessment Test
SWPPP	Stormwater Pollution Prevention Plan
TCE	trichloroethene
TDS	total dissolved solids
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound
Vulcan Materials	Vulcan Materials Company, Inc.
µg/L	micrograms per liter

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Summary

Site History and Operations: The Hewitt Pit Landfill is located at 7245-7361 Laurel Canyon Road in North Hollywood, California. Quarry activities began in 1923. The site was opened as a Class II landfill in 1962, reportedly accepting only non-hazardous and inert solid waste. Landfill operations were conducted by Los Angeles By-Products Company under a lease agreement with Consolidated Rock Products Company. Hewitt Pit Landfill was capped and closed November 12, 1975.

Documented Releases and Subsurface Impacts: No documented releases or subsurface impacts have been directly attributed to this site. However, the landfill was unlined, did not have a leachate collection system, and repeatedly experienced ponding from captured rainfall and runoff. Commercial and residential refuse from that time period typically included incidental waste and nearly spent products and containers containing volatile organic compounds (VOCs). Substantially higher groundwater VOC concentrations in area monitoring wells downgradient of the landfill versus up- and cross-gradient, combined with the site history and groundwater modeling, indicate that subsurface impacts have likely occurred as a result of waste disposal in the Hewitt Pit.

Relation to COCs in Area Groundwater: Two groundwater monitoring wells are located within the eastern boundary of the Hewitt Landfill (Los Angeles County Well Nos. 4909F and 4909C), and are designated the site's downgradient monitoring wells. However, these wells appear to be located incorrectly given that the direction of groundwater flow was consistently southeast prior to 1987, and has ranged from southeast to southwest since 1987. The site's upgradient well, County Well No. 4899, is approximately 700 feet west of the northern end of the landfill. The most recent groundwater monitoring data for this site indicates trichloroethene (TCE) concentrations of 30 micrograms per liter ($\mu\text{g/L}$) for designated downgradient well 4909F, 63 $\mu\text{g/L}$ for designated downgradient well 4909C, and below detection for upgradient well 4899. Tetrachloroethene (PCE), 1,1,1-trichloroethane, and hexavalent chromium also were detected in wells designated downgradient wells 4909F and 4909C, and were not detected in upgradient well 4899 (MWH, 2011). At least 30 downgradient wells are impacted by VOCs, with maximum TCE concentrations of approximately 500 $\mu\text{g/L}$. The distribution of impacted wells is consistent with groundwater flow and solute transport modeling that assumes contaminant releases from the landfill occurred during 1968-1988.

Data gaps: The U.S. Environmental Protection Agency acknowledged on p. 4-32 of the July 2009 Focused Feasibility Study (FFS) for the 2nd Interim Remedy at the North Hollywood Operable Unit that the "target volume (at the Hewitt Pit) is poorly delineated at present and will require further investigation prior to development of a containment or remediation strategy." Flow lines on Figure 4-15 of the July 2009 FFS suggest that the capture zone of LADWP's Rinaldi-Toluca production well field extend into the area of the Hewitt Pit Landfill. This indicates that release from the Hewitt Pit area would threaten groundwater supply wells. VOC concentrations in upgradient well 4899 have been below 6 $\mu\text{g/L}$ except for a one-time detection of elevated concentrations in 1987. The landfill's designated downgradient monitoring wells located along its eastern boundary, 4909C and 4909F, are infrequently hydraulically downgradient, given the predominately southeast to southwest local gradient. PCE, TCE, 1,4-dioxane, and other VOCs are detected in other downgradient wells, including many offsite wells (e.g., NH-C09, NH-VPB-06, NH-24). These statements and observations indicate that a thorough assessment of the vadose zone and groundwater underlying and downgradient of the Hewitt Pit landfill is warranted in

determine whether the landfill poses a threat to drinking water production wells associated with the Rinaldi-Toluca and North Hollywood West wellfields.

1.0 Introduction

Introductory Text: This memorandum addresses Hewitt Pit Landfill located at 7245-7361 Laurel Canyon Road, North Hollywood, California (Figure 1). This facility lies within the North Hollywood Operable Unit (NHOU) of the U.S. Environmental Protection Agency (USEPA) San Fernando Valley (SFV) Superfund Site. The NHOU chemicals of concern (COCs) include the following volatile organic compounds (VOCs): Trichloroethene (TCE), tetrachloroethene (PCE) and 1,1,1-trichloroethane (1,1,1-TCA); and the following emerging contaminants: 1,4-dioxane; total and hexavalent chromium; perchlorate; 1,2,3-trichloropropane; and N-nitrosodimethylamine.

Consideration of this site as a potential source of groundwater contamination within NHOU is based on the following:

- On-site monitoring wells show evidence of elevated concentrations of TCE and other VOCs.
- Concentrations of TCE, other VOCs, and other emerging chemicals (1,4-dioxane) have been detected in groundwater monitoring wells installed near Hewitt Pit Landfill.
- VOC and/or other emerging chemical plumes of unknown extent may emanate from beneath the Hewitt Pit Landfill.
- Groundwater produced from LADWP's Rinaldi-Toluca wellfield, 500 to 1,000 feet [ft] east of the landfill, and western North Hollywood wellfield, about 2,000 ft south of the landfill, has been impacted by VOCs and other emerging contaminants. [10]
- A recent technical memorandum evaluating groundwater contamination in the vicinity of the Hewitt Pit Landfill noted the following: (1) the repeated ponding of rainfall and runoff within the unlined landfill, combined with the absence of a leachate collection system, indicate that the landfill likely produced and released leachate to the underlying groundwater; (2) leachate generated by municipal landfills is commonly a significant source of waste solvents such as TCE, PCE, and other VOCs, with the potential to adversely impact groundwater quality; (3) the designated downgradient monitoring wells (4909C and 4909F) appear to be incorrectly positioned given that the local groundwater hydraulic gradient is predominantly oriented to the southeast and southwest; monitoring wells along the southern landfill boundary would be better positioned; (4) at times when the groundwater gradient is easterly due to heavy pumping by the deeply screened Rinaldi-Toluca wells, impacted groundwater may pass beneath the shallow packers placed in wells 4909C and 4909F; and (5) the results of groundwater flow and contaminant transport modeling are reasonably consistent with the observed distribution of impacted groundwater downgradient of the landfill. [3] [23] [24]

Section 2 of this memorandum provides factual information regarding the site's property location, size, and surroundings; status and history of property and business ownership and operations; services and manufacturing processes; chemical use, handling, and storage; waste types, storage, handling, volumes, and disposal; documented spills and releases; regulatory history; description and results of site investigations; and remedial actions and recommendations.

Section 3 relates the site to the NHOU hydrogeology and distribution of COCs in NHOU groundwater as described in recent reports.

2.0 Facility Summary

2.1 Property Location, Size, and Surroundings

- Hewitt Pit Landfill is a 58.3-acre parcel located at 7245-7361 Laurel Canyon Boulevard in North Hollywood, California (Figure 2). [7]
- The site is situated in a former sand and gravel quarry. [7]
- The site is bounded by Saticoy Street on the north; Laurel Canyon Boulevard to the east, Southern Pacific Railroad Company right of way to the South; and private property facing Whitsett Avenue and the Hollywood Freeway to the west. [7]
- Residential properties are adjacent to the north and commercial properties are located east of Laurel Canyon Boulevard. [7]
- The site is within a flat lying urbanized alluvial plain; approximate site elevations range between 750 and 770 ft above mean sea level. [9]

2.2 Property Ownership Status and History

unknown to 2005 CalMat Company dBA Vulcan Materials Company, Inc. (Vulcan Materials). [7] [8] [24]

2.3 Business Ownership Status and History

pre-1923 Land owned by Fred W. Heatherly and Louise E. Heatherly [6]

10/26/23 Acquired and Operated by Consumers Rock and Gravel Company (Consumers). [6] [7]

1929 Consumers merged with Consolidated Rock Products Company (ConRock). [7]

1962 Landfill operations were conducted by Los Angeles By-Products Company under a lease agreement with ConRock. [7]

1984 to Present Additional mergers lead to present ownership, CalMat Company dBA Vulcan Materials Company, Inc. (Vulcan Materials). [6] [7]

Pre-2005 to ? Site land use is mixed operations utilizing an area for various leased tenants. [7]

2.4 Operations and Services Status and History

1923 Quarry activities began. The total depth of the open pit was between 130 and 150 ft deep. [6] [7] [13]

1959 Waste discharge requirements were issued and Hewitt Pit Landfill was opened in 1962. [7]

1962 to 1975 Hewitt Pit Landfill opened as a Class II landfill, reportedly accepting only non-hazardous and inert solid waste. Landfill operations were conducted by Los Angeles By-Products Company under a lease agreement with ConRock. Hewitt Pit Landfill was capped and closed in 1975. [7] [12]

1977 to Present?	A methane collection system with flare was installed at the site, and over the years has been replaced or rebuilt to control methane gas migration. Routine landfill surface and compliance probe monitoring is conducted. [7]
1983 and 1985	Additional fill was placed to refill subsidence depressions.
Pre-1991 to ?	Land used for CalMat Self Storage and RV/boat storage. [12]
Pre-2005 to ?	<p>The southernmost portion of the site occupies 40 acres and contains auto auction and self-storage units for household goods. The southern portion is comprised of 30 percent paved with asphalt surfaces or buildings.</p> <p>The northeastern portion of the site is occupied by a self storage business owned and operated by Laurel Canyon Holdings (LCH). LCH leased entire landfill property from Vulcan to operate outdoor storage of goods and parking of transportation equipment on 6.5 acres. LCH intended to expand its business on the northernmost 20 acres of the site.</p> <p>The southern portion of the site is leased to Insurance Auto Auction (IAA) where damaged automobiles are sold at auctions for insurance companies (not a wrecking-dismantling yard operation).</p> <p>The eastern center portion of the site is leased to All Valley Dealers Auto Auction for auctioning new and used automobiles for banks, lending institutions and local new car dealers.</p> <p>The western center portion of the site is leased to IV Auto. [7]</p>

2.5 Services and Manufacturing Processes

- Hewitt Pit Landfill opened as a Class II landfill in 1962, and was capped and closed in 1975. There have been no known manufacturing processes conducted on this property. [7]

2.6 Chemical Use, Handling, and Storage

- Reportedly, there have been no known uses, handling, or storage of chemicals as materials at Hewitt Pit Landfill.

2.7 Waste Types, Storage, Handling, Volumes, and Disposal

- The site reportedly operated as a Class II landfill from 1962 to 1975 and only accepted non-hazardous and inert solid wastes. Commercial and residential refuse from that time period typically included nearly spent products and containers with TCE, PCE, TCA, and other VOCs that were used in a wide variety of consumer and commercial products. [12]
- Total volume of waste disposed at the site are unknown. What is known is that the pit was approximately 150 ft deep. [13]

2.8 Environmental Permits

- No information available

2.9 Documented Spills and Releases

2.10 Regulatory History

Late 1984 At the request of the City of Los Angeles Task Force, 2 monitoring wells were installed at the site, upgradient well 4899 and downgradient well 4909F. [13]

September 8, 1987 The California Regional Water Quality Control Board, Los Angeles Region (RWQCB) issued comments letter regarding deficiencies in Solid Waste Assessment Test (SWAT) proposal including 1) Existing well construction appeared to be inadequate for SWAT groundwater monitoring; 2) Well number 3800C, the southernmost proposed downgradient well, was inadequate for SWAT groundwater monitoring because sufficient well construction data was not presented, and 3) Regarding the southern most downgradient well, the letter also noted 'the best location appears to be along Laurel Canyon Boulevard at the northeast corner of the landfill'. [19]

November 2, 1987 RWQCB approved the Hewitt Pit Landfill SWAT Proposal upon reviewing response to comments letter dated September 25, 1987. [18]

September 22, 1988 USEPA requested information about the landfill [27]

May 1, 1991 The SWAT Report, dated July 1, 1989, was approved by RWQCB. [12]

August 17, 1995 USEPA requested sampling of wells for current data by USEPA. [2]

July 30, 1996 U.S. Department of Justice issues Consent Decree naming Hewitt Pit Landfill as a VOC polluter to NHOU waters. [25]

February 11, 2005 RWQCB reviewed and accepted Development Design Workplan. RWQCB deemed that the proposed land use was acceptable and requested that a Stormwater Pollution Prevention Plan (SWPPP) be prepared for the construction stormwater permit and that the site's existing SWPPP be updated to include best management practices to control industrial pollutants. [7]

February 10, 2006 USEPA requested quarterly sampling to begin in first quarter 2006. [15]

3/28/06 & 11/22/06 USEPA General Notice Letter 104(e) for San Fernando Valley Superfund Site and request for missing data. [1] [21]

May 1, 2008 USEPA settlement agreement to CalMat. [20]

2.11 Site Investigations

2.11.1 Investigators

1977 Lockman & Associates - Landfill Gas Testing [14]

1984 Unknown - 2 wells installed (1 upgradient well 4899 and 1 downgradient well 4909F).

1987 LeRoy Crandall and Associates - SWAT study proposed. [13]

1990 Horizon Air Measurement Services - Landfill Gas Testing. [11]

1991 Law/Crandall - After RWQCB May 1, 1991 approval, conducted the groundwater monitoring event on December 20, 1991 that included 4899, 4909F, and 4909C (unknown when installed). [12]

2005 GC Environmental, Inc. - Postclosure Land Use Plan and SWPPP. [7]

2006 SCS Field Services - Landfill Gas Monthly Testing [22]

2006-2007 CDM - Groundwater sampling [4] [5]
2000-2007 GC Environmental - Monthly Methane Readings to South Coast Air Quality Management District (AQMD).

2.11.2 Areas of Investigation

- 1977: Installed 9 new vapor wells, used 3 current ones installed in 1975 and installed a portable gas rig and burner [14]
- 1984: Installed 1 upgradient well (4899 in the southern parkway of the North Saticoy Street cul-de-sac, approximately 100 ft west of the Hollywood Freeway) and 1 downgradient well 4909F (located on Laurel Canyon Boulevard approximately 500 ft north of well 4909C). [13]
- 1987: SWAT is a site-wide assessment document. [13]
- 1990: Routine sampling across the landfill. [11]
- 1991: Began sampling upgradient and off-site well 4899 and downgradient onsite wells 4909C and 4909F. (4909C is located on the western side of Laurel Canyon Boulevard, just north of the railroad overpass on the landfill property). [12]

2.11.3 Field Activities

1984 Installed wells 4899 and 4909F.
1991 Completed sampling of 4899, 4909F, and 4909C. Sampling monitoring parameters were total dissolved solids (TDS), bicarbonate (HCO₃), chloride, nitrates, electrical conductivity, and alkalinity. [12]

2.11.4 Findings

February 1987 SWAT: Determined the ownership of the wells, the depth of presently existing wells in the vicinity of the landfill, and assessed the suitability of the wells for use as monitoring wells. The study included review of well data at the Los Angeles County Flood Control District Office, LADWP, and a review of published data from the California Department of Water Resources and the RWQCB. Reviewed existing water quality data for wells within a 1-mile radius of the site, including Well 4899 located 300 feet upgradient and the downgradient well (Well 4909C). LADWP well 3800C (NH-24) was reported to have good records of VOCs over several years. Preliminary review of the local water analyses showed that upgradient water had high levels of 1,1-dichloroethane (DCA), TCE, and other trace priority pollutants. Sodium was higher upgradient; chloride was higher downgradient. There was no apparent decrease or increase in hardness attributable to landfill gas at the downgradient well. Except for TCE and 1,1,1-TCA, these were not present in the downgradient well, but present in the LADWP supply well 3800C.
During the February 27, 1987 sampling event, upgradient well 4899 showed concentrations of 1,1-dichloroethane (1,1-DCA), PCE, and TCE at 46, 200, and 45 micrograms per liter (µg/L), respectively, suggesting there may be a solvent plume flowing beneath the landfill. However, as noted below, these high

	concentrations were not replicated in subsequent sampling. PCE and TCE were detected in the designated downgradient well 4909C at 6 and 71 µg/L, respectively. [13]
April 1988 to February 1989	During subsequent sampling events, TCE and PCE concentrations decreased in wells 4899 and 4909C to less than 1 µg/L. Low concentrations of TCE and PCE from less than 1 µg/L to 2 µg/L were detected in Well 4909F from April 4, 1988 through February 6, 1989. [12]
December 20, 1991	Water levels were measured and groundwater samples were collected from reportedly downgradient wells 4909C and 4909F. Well 4899 was dry. Groundwater levels had decreased 6 feet since the February 1989 report and water level decline suspected to be seasonal. During the sampling conducted in December 1991, only 4909F (580 parts per million [ppm]) exceeded the secondary maximum contaminant level for TDS of 500 ppm. High TDS attributed to HCO ₃ resulting from the reaction of carbon dioxide and water. It was concluded that landfill gas may be affecting local groundwater quality (carbon dioxide + water = HCO ₃). [12]
February 2011	Recent data in the SFV Database noted upgradient well 4899 (TCE @ 0 µg/L and PCE @ 5.6 µg/L) and downgradient well 4909F (TCE @ 30 µg/L and PCE @ 8.8 µg/L).

2.12 Remedial Actions

1977 to Present?	A methane collection system with flare was installed at the site, and over the years has been replaced or rebuilt to control methane gas migration. Routine landfill surface and compliance probe monitoring is conducted. [7]
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2.13 Notice of Violations

3.0 Relation to COCs in Groundwater

3.1 Site and Area Hydrogeology

- The site is located in the SFV, a physiographic basin that is bounded by the San Gabriel Mountains to the north and the Santa Monica Mountains to the south. The valley is underlain by a Holocene-age sedimentary basin that covers nearly 200 square miles. Much of the basin consists of recent alluvium with local thickness that approaches approximately 1,000 ft. The NHO is located in the eastern part of the basin, where coarse sandy and gravelly alluvium was deposited by braided streams that originated in the San Gabriel Mountains (Geological Survey of America, 1986). In general, the alluvium is dominated by gravel interbedded with localized lenses of clay and silt. [16]
- Groundwater has historically flowed from northwest to southeast. The direction of groundwater flow has fluctuated since initiation of SWAT program in response to LADWP pumping such that it is sometimes oriented to the east and northeast as a result of the Rinaldi-Toluca wellfield, and south-southwest as a result of pumping from the western portion of the North Hollywood wellfield. ULARA Watermaster groundwater elevation contour maps indicate that the groundwater gradient in the area of the Hewitt Pit Landfill was consistently southeast prior to 1987, and has ranged from southeast to southwest since 1987. [12] [13]

- Figure 3 provides hydrographs of groundwater elevations recorded in 4 area monitoring wells since the late 1980s. The depth to groundwater measured in well 4909C located at the site was 268.4 ft below ground surface (bgs) on January 5, 2010. The recorded depth to groundwater in NH-VPB-06, less than 1,000 ft east of the site, was measured at 251.2 ft bgs on April 8, 2011.
- Figure 4 is a plot showing the directional frequency of the groundwater hydraulic gradient in the vicinity of the former Hewitt Pit Landfill facility as simulated quarterly from 1981 to 2008 using USEPA's San Fernando Basin Feasibility Study calibrated groundwater flow model, version B. The simulated hydraulic gradient is predominantly to the southeast with a small percentage of the quarters suggesting groundwater flow to the south and southwest.
- There are approximately 75 municipal water supply wells located within the NHOH that are operated by the LADWP and encompass the North Hollywood (West and East), Rinaldi-Toluca, Whitnall and Erwin well fields within 5-miles from the site. The distance to the nearest groundwater municipal supply well from this facility (RT-1 and RT-14) is approximately 500 ft to the northeast. No recent water level data was available.
- There are over 75 groundwater monitoring wells located within the NHOH within a 5-mile radius of the site. The distance to the nearest monitoring well (NH-C09) is approximately 1,000 ft to the south. The water level in December 2010 was 245.92 ft bgs.
- Groundwater in the NHOH is pumped by LADWP, blended with imported water and delivered to residents in the City of Los Angeles.
- In a recent technical memorandum on contamination in the vicinity of the Hewitt Pit Landfill, groundwater flow and contaminant transport simulations were evaluated along with an analysis of historical groundwater information and landfill operations to conclude that leachate containing VOCs from the Hewitt Pit Landfill is likely responsible for some portion of the observed groundwater contamination within the NHOH. The memorandum also noted that groundwater flow directions were predominately southeast to southwest, with periods of groundwater flow to the south-southwest, indicating that the designated 'downgradient' wells 4909C and 4909F were incorrectly located and better placement would have been along the southern boundary of the Hewitt Pit Landfill. Additionally, the memorandum notes that the packer placement in 4909C and 4909F may have been too shallow. Contaminated groundwater from the landfill could pass beneath the shallow packers due to deeper Rinaldi-Toluca well screens. [24]
- There are no known affected surface water body's within this study area.
- The specific soil types and depths are unknown beneath this facility.

3.2 Past and Current Distribution of COCs in Groundwater

- Figures 5 through 9 are estimated groundwater isoconcentration maps for TCE, PCE, 1,1,1-TCA, 1,4-dioxane, and hexavalent chromium, respectively, in the vicinity of the Hewitt Pit Landfill. These maps are interpreted from the most recent analytical results for the wells shown in these figures, many of which were sampled in 2011, with the remaining last sampled between 1988 and 2010. Figure 5 shows Hewitt Pit Landfill situated on the western edge of a TCE plume located in the NHOH. In 2011, the downgradient well 4909F had 30 µg/L of TCE and upgradient well 4899 was non-detect for TCE. Additionally, wells located downgradient from Hewitt Pit Landfill show elevated concentrations of TCE. Figure 6 shows the distribution of PCE up to 50 µg/L in groundwater at the site, and in areas hydraulically downgradient of the site. PCE was measured at a concentration of 8.8 µg/L in Well 4909F at the site on February 2, 2011. Figure 7 shows groundwater with concentrations of 1,1,1-TCA with relation to the site. Figure 8 shows a concentration of 1 µg/L

1,4-dioxane measured in Well 4909F at the site on February 2, 2011. Figure 8 shows 3 other areas enveloping wells with greater than 1 µg/L 1,4-dioxane upgradient and downgradient of the site. Figure 9 shows hexavalent chromium in groundwater with relation to the Hewitt Pit Landfill site. The boundaries of these areas are poorly defined due to limited number of groundwater monitoring wells in the vicinity of Hewitt Pit Landfill. The source or sources of groundwater contamination in the vicinity of Hewitt Pit Landfill have not been determined. [16] [26]

- Figure 10 is a geologic cross-section showing existing data from wells adjacent to Hewitt Pit Landfill. VOCs appear to be prevalent both north and south within the proximity of the site.

4.0 Potential Data Gaps

- USEPA acknowledged on p. 4-32 of the July 2009 FFS for the 2nd Interim Remedy at the NHOU that the "target volume (at the Hewitt Pit Landfill) is poorly delineated at present and will require further investigation prior to development of a containment or remediation strategy." [10] [26]
- Flow lines on Figure 4-15 of the July 2009 FFS suggest that the capture zone of LADWP's Rinaldi-Toluca production wellfield extend into the area of the Hewitt Pit Landfill. This indicates that release from the Hewitt Pit area would threaten groundwater supply wells. [10] [26]
- Low or no detections of VOCs and other contaminants in up- and cross-gradient wells compared to elevated detections of PCE, TCE, 1,4-dioxane, and other contaminants in the site's two designated downgradient wells and many other downgradient, offsite wells (e.g., NH-C09 and NH-VPB-06) indicate that the Hewitt Pit landfill may be a source of impact to groundwater. Furthermore, the results of groundwater flow and solute transport modeling are consistent with the landfill being a potential source of the contamination observed in many downgradient wells. [16]
- These statements and observations indicate that a thorough assessment of the vadose zone and groundwater underlying and downgradient of the Hewitt Pit Landfill is warranted in determine whether the landfill poses a threat to drinking water production wells associated with the Rinaldi-Toluca and North Hollywood West wellfields. [17]

5.0 References

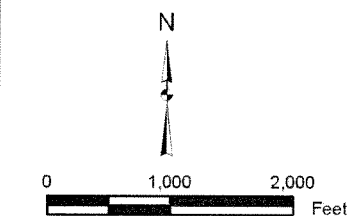
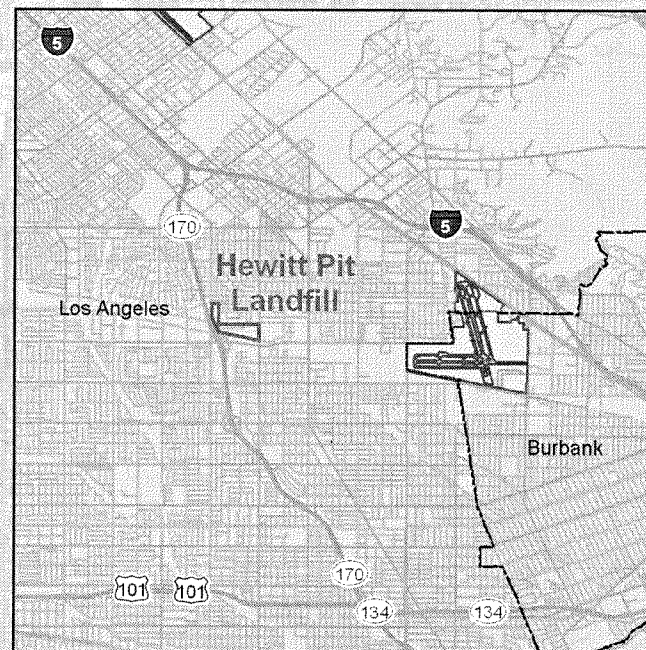
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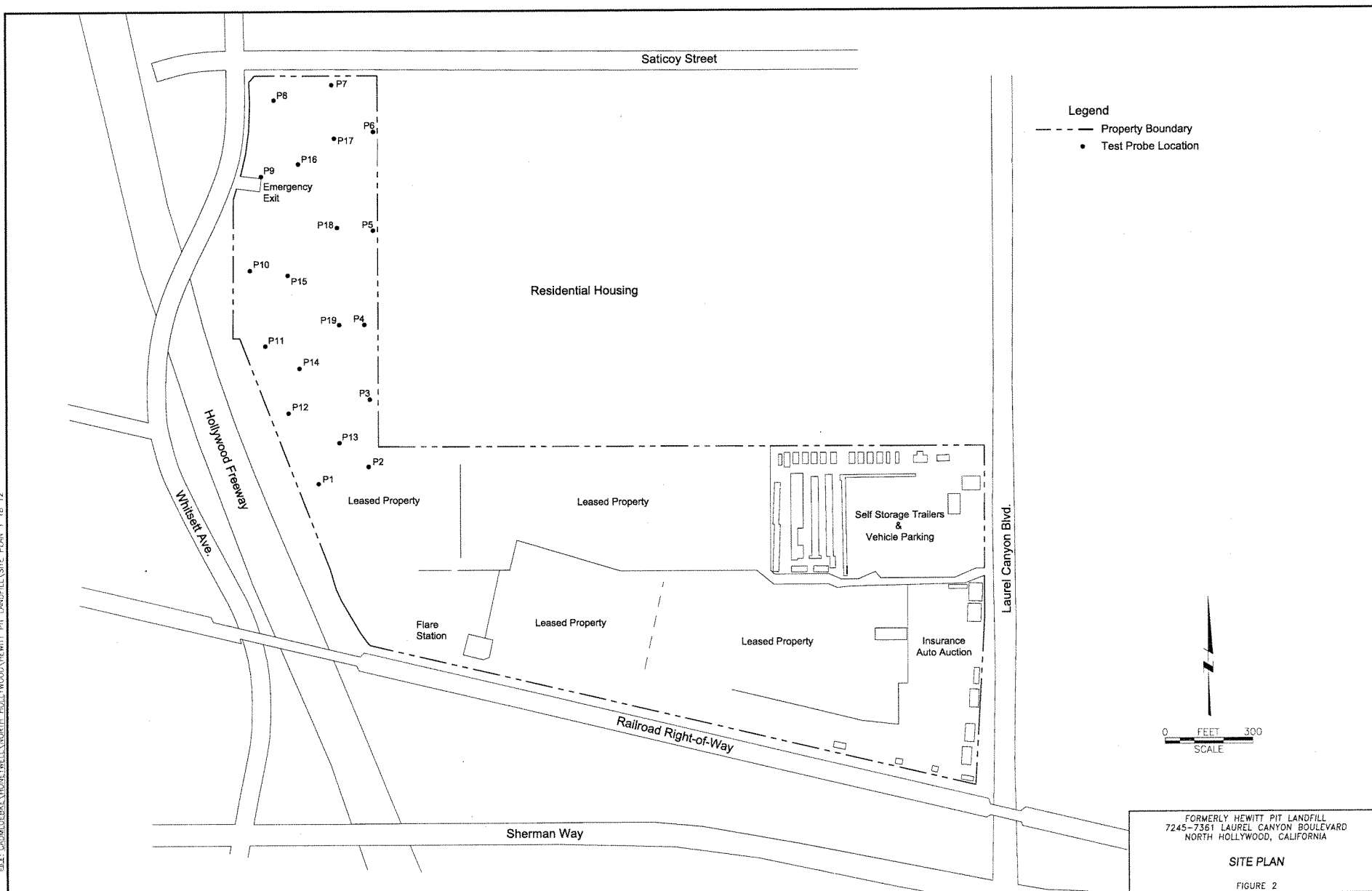
- No other sources were reviewed for Hewitt Pit Landfill.



NORTH HOLLYWOOD OPERABLE UNIT

Location Map

Figure 1



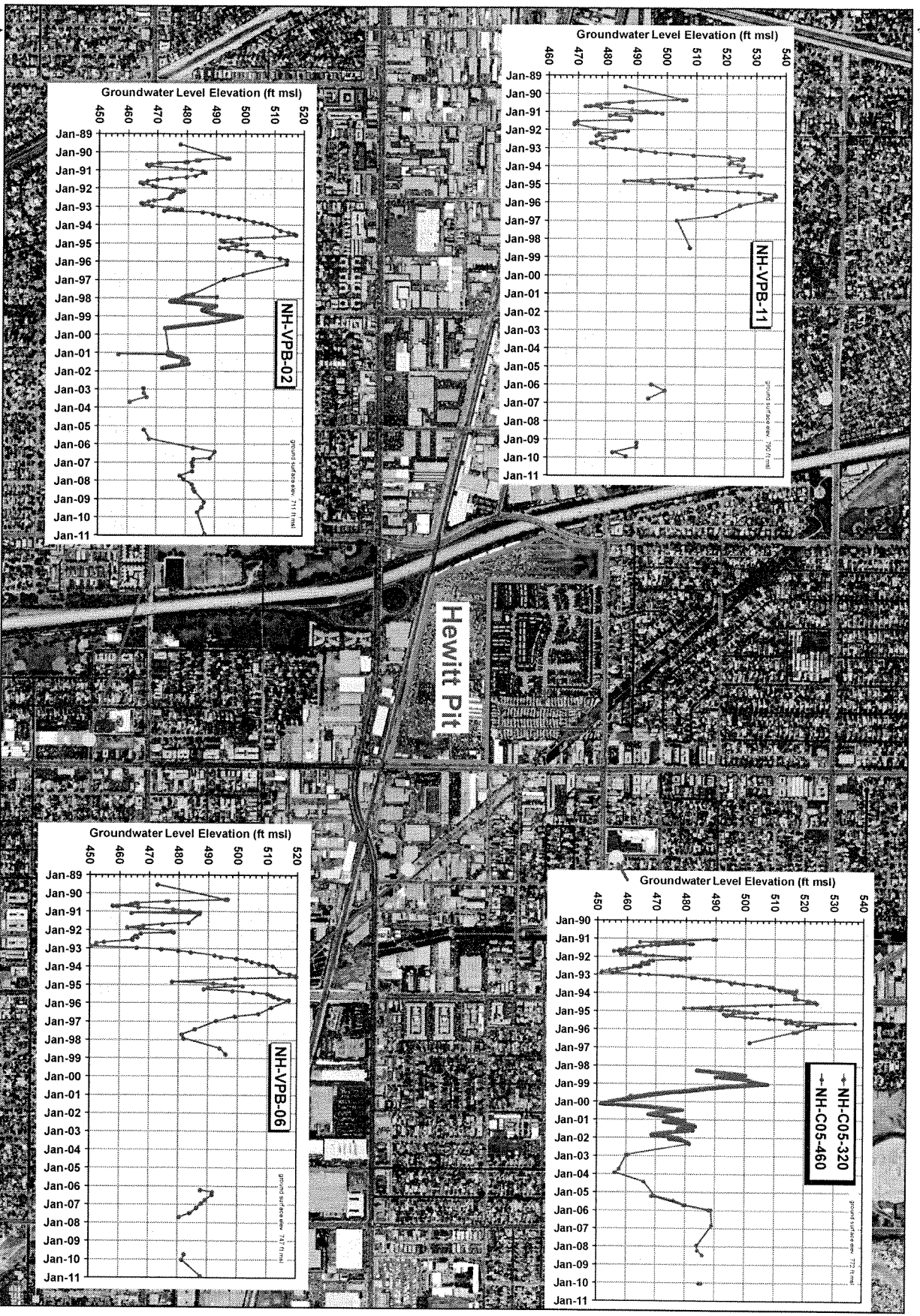
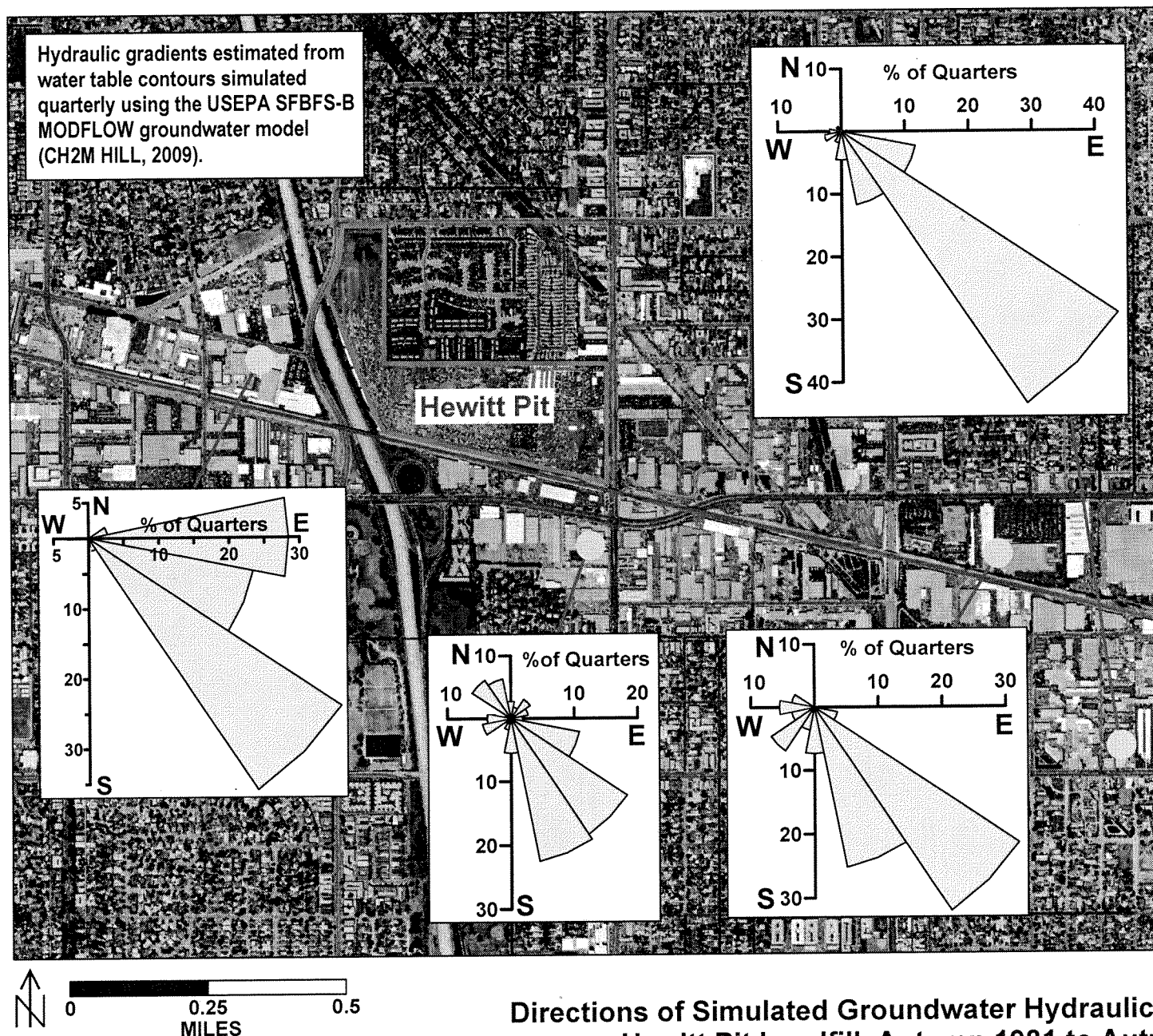
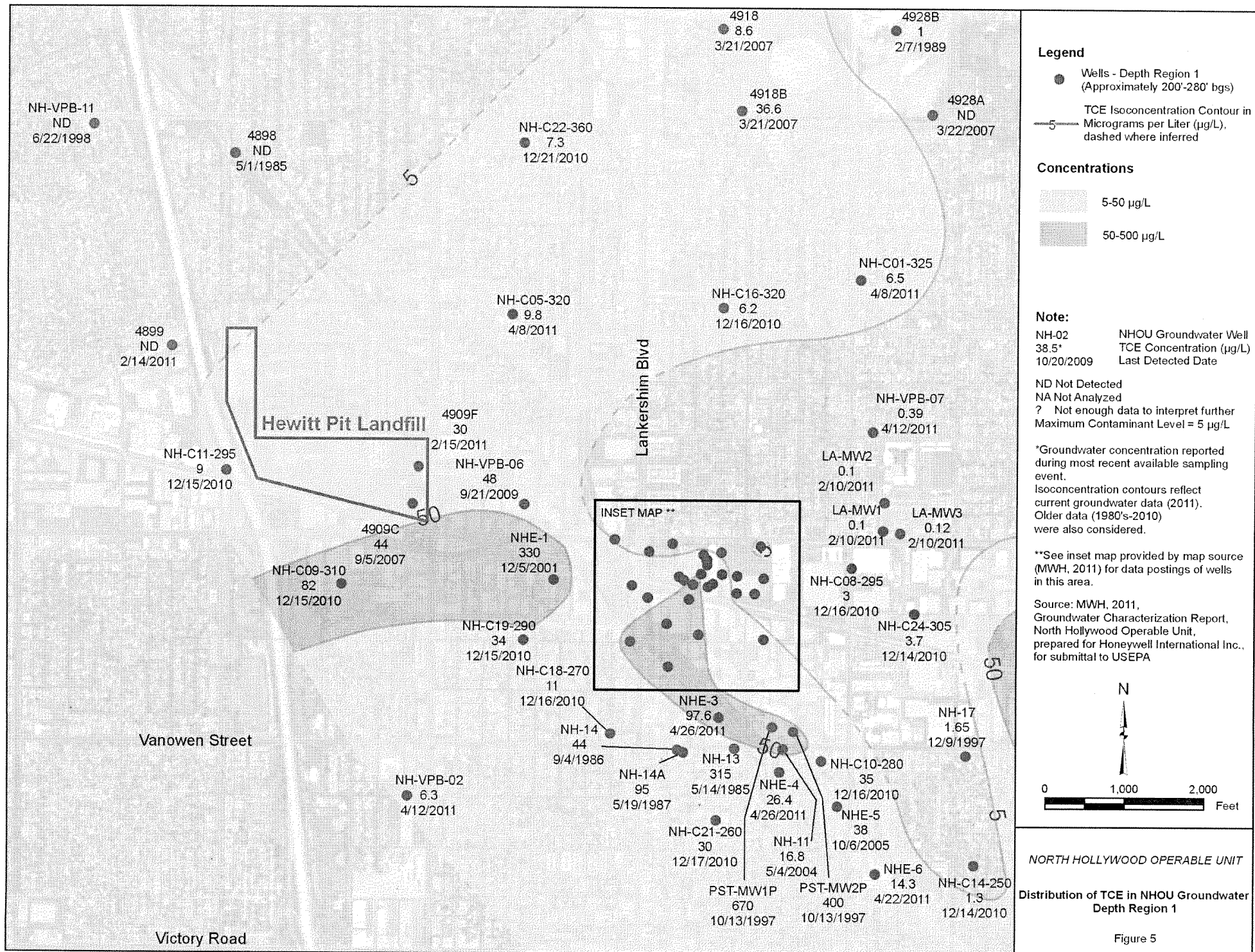
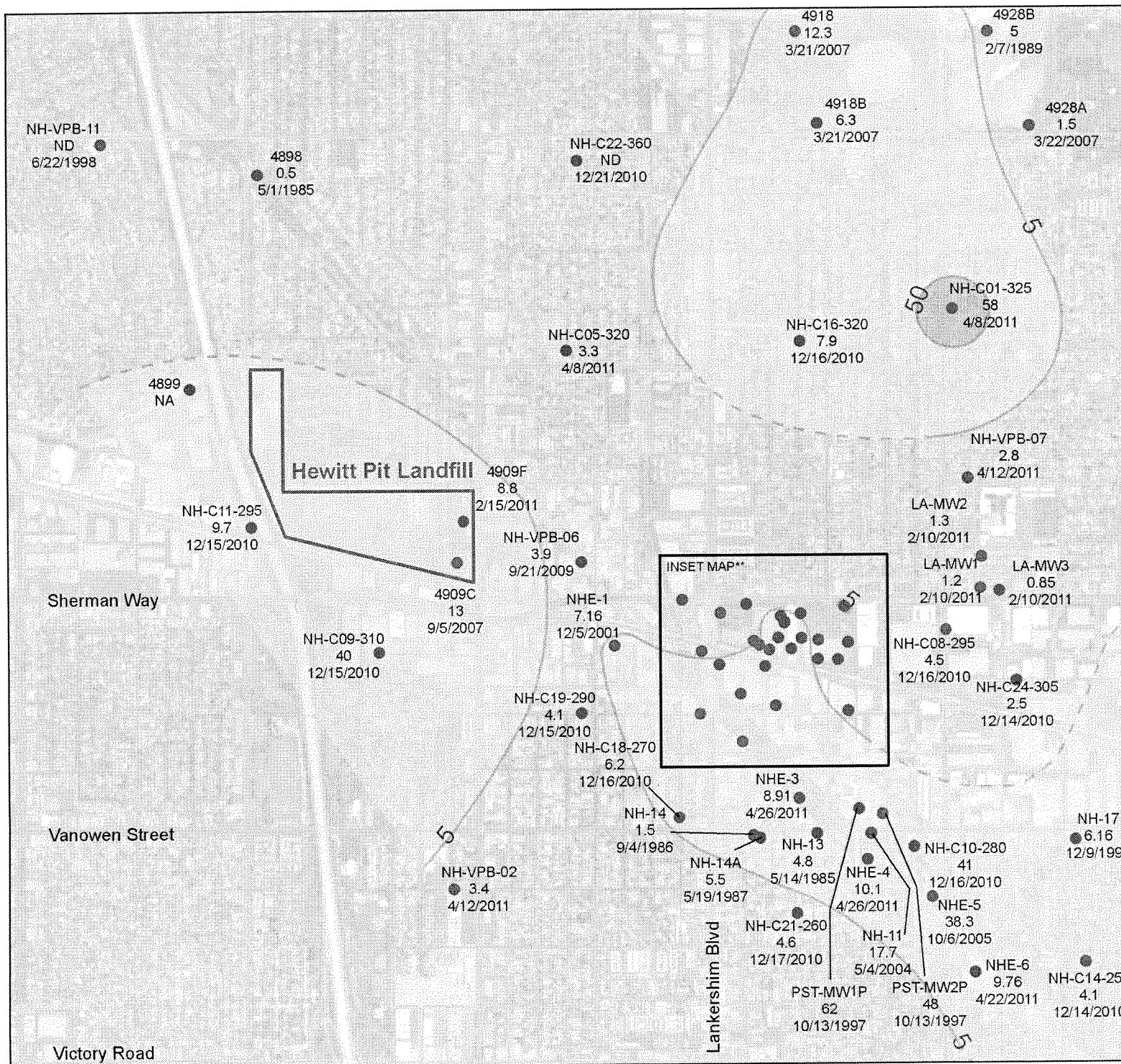


Figure 3
Groundwater Level Hydrographs for
Area Monitoring Wells, 1989-2010

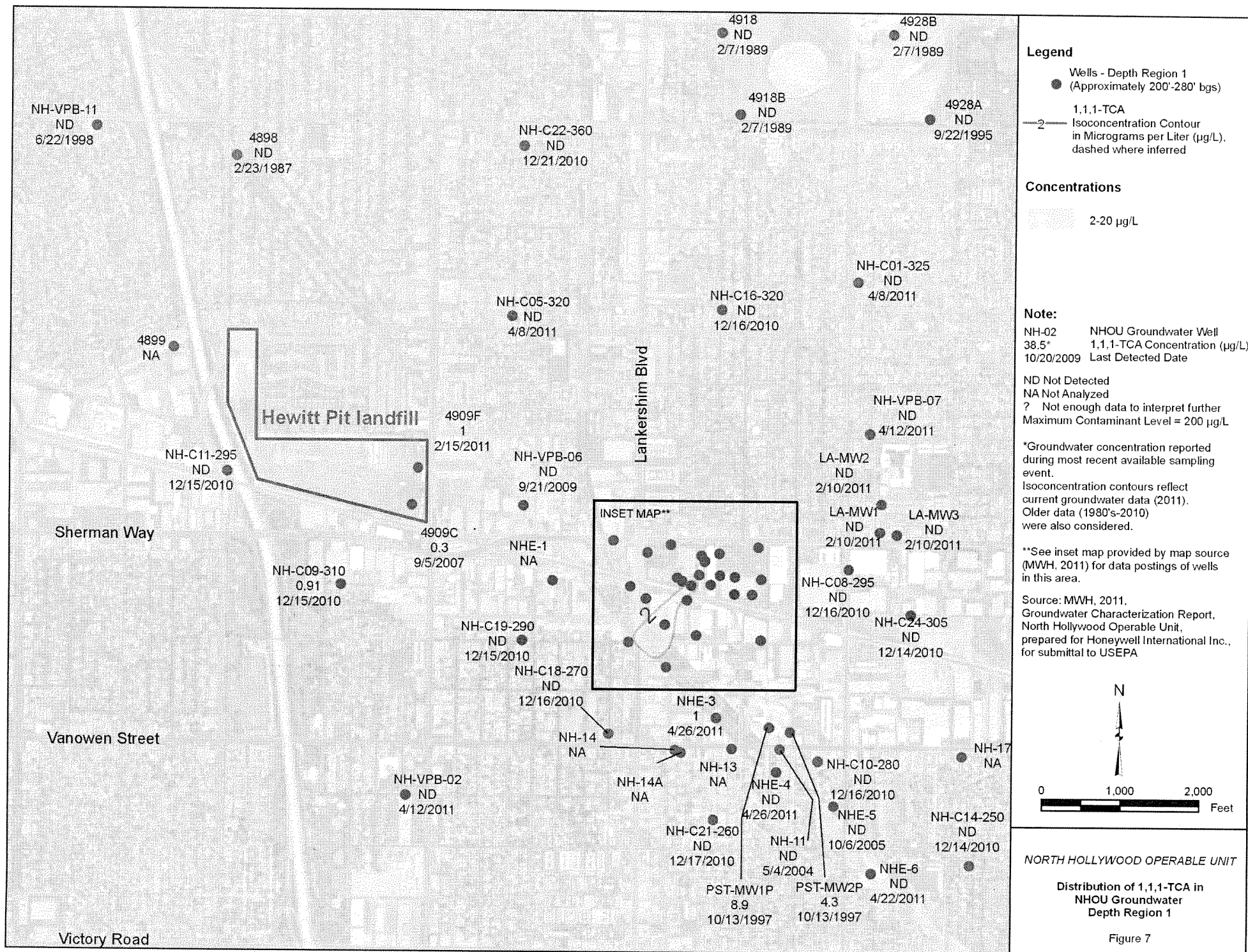


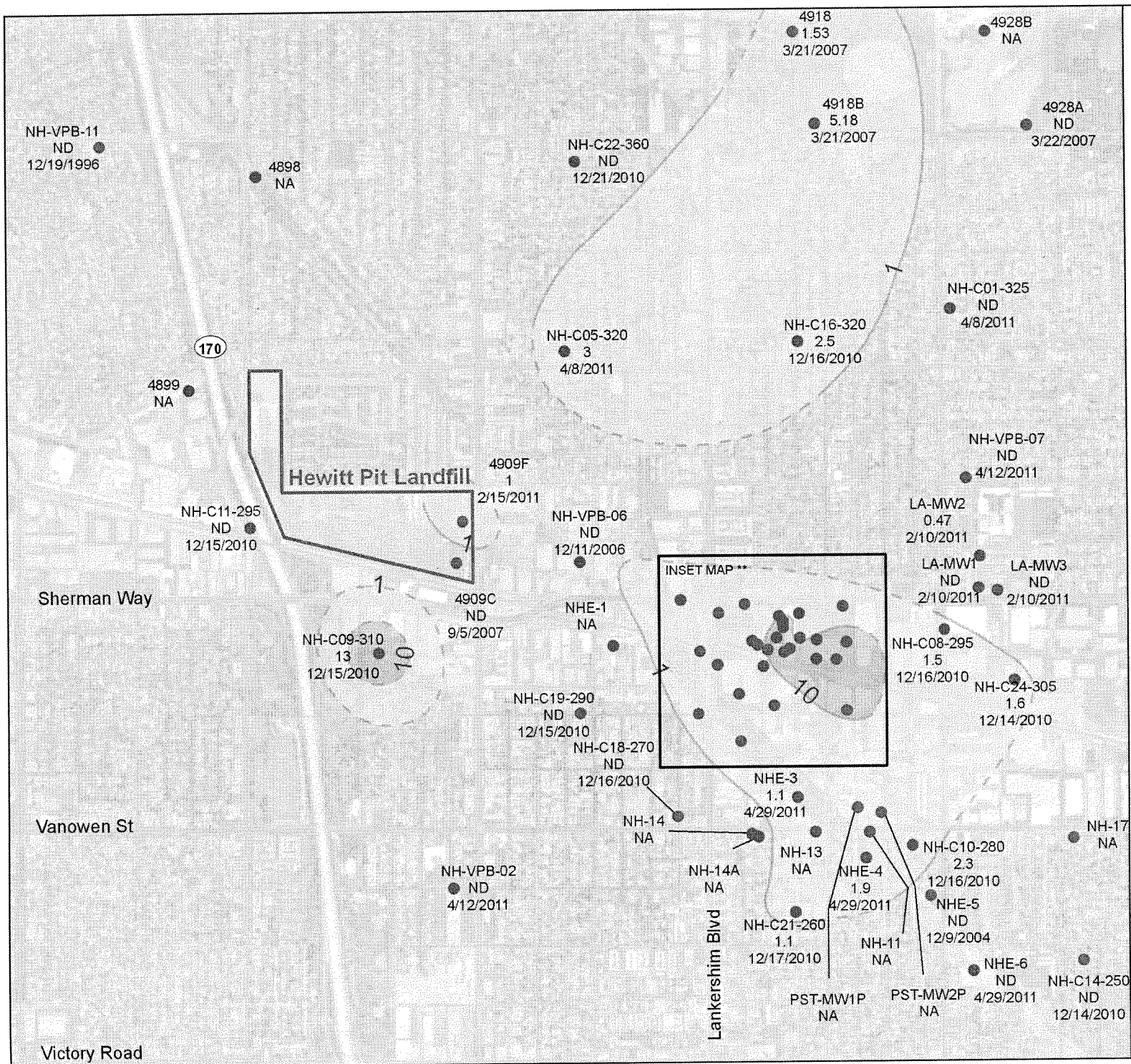




NORTH HOLLYWOOD OPERABLE UNIT
Distribution of PCE in NHOU Groundwater
Depth Region 1

Figure 6





Legend

- Wells - Depth Region 1 (Approximately 200'-280' bgs)
- 1,4-Dioxane Isoconcentration Contour in Micrograms per Liter (µg/L), dashed where inferred

1,4 Dioxane Concentrations

- 1-10 µg/L
- 10-100 µg/L

Note:

NH-02
38.5*
10/20/2009

NHOU Groundwater Well
TCE Concentration (µg/L)
Last Detected Date

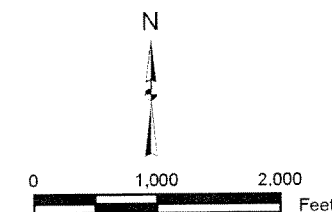
ND Not Detected
NA Not Analyzed

Isoconcentration contours reflect current groundwater data (2011). Older data (1980's-2010) also considered.

*Groundwater concentration reported during most recent available sampling event.

**See MWH, 2011, for data postings within inset map.

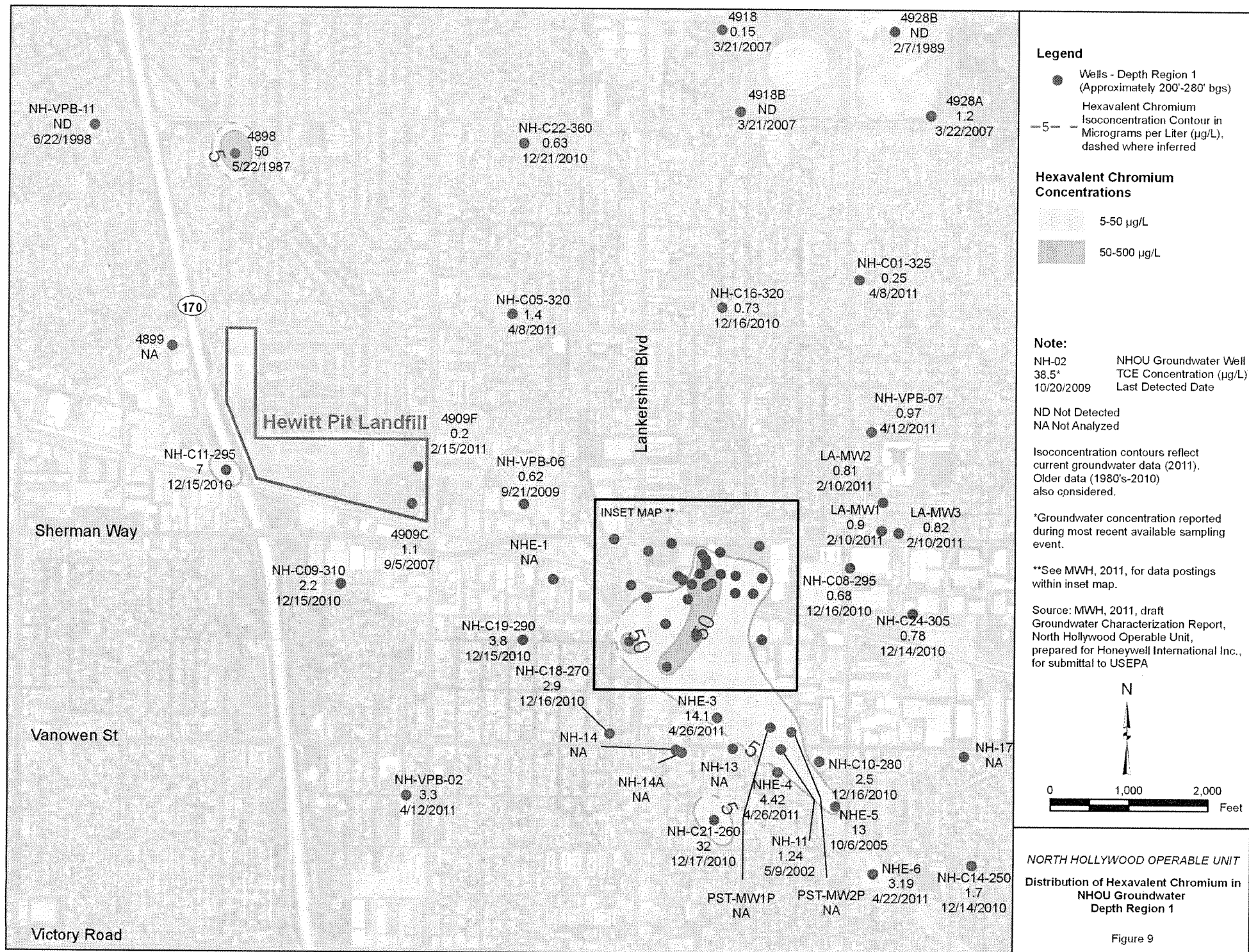
Source: MWH, 2011, draft Groundwater Characterization Report, North Hollywood Operable Unit, prepared for Honeywell International Inc., for submittal to USEPA

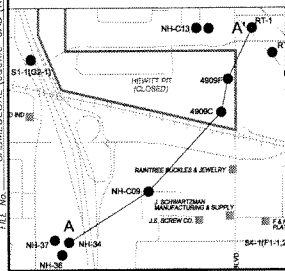
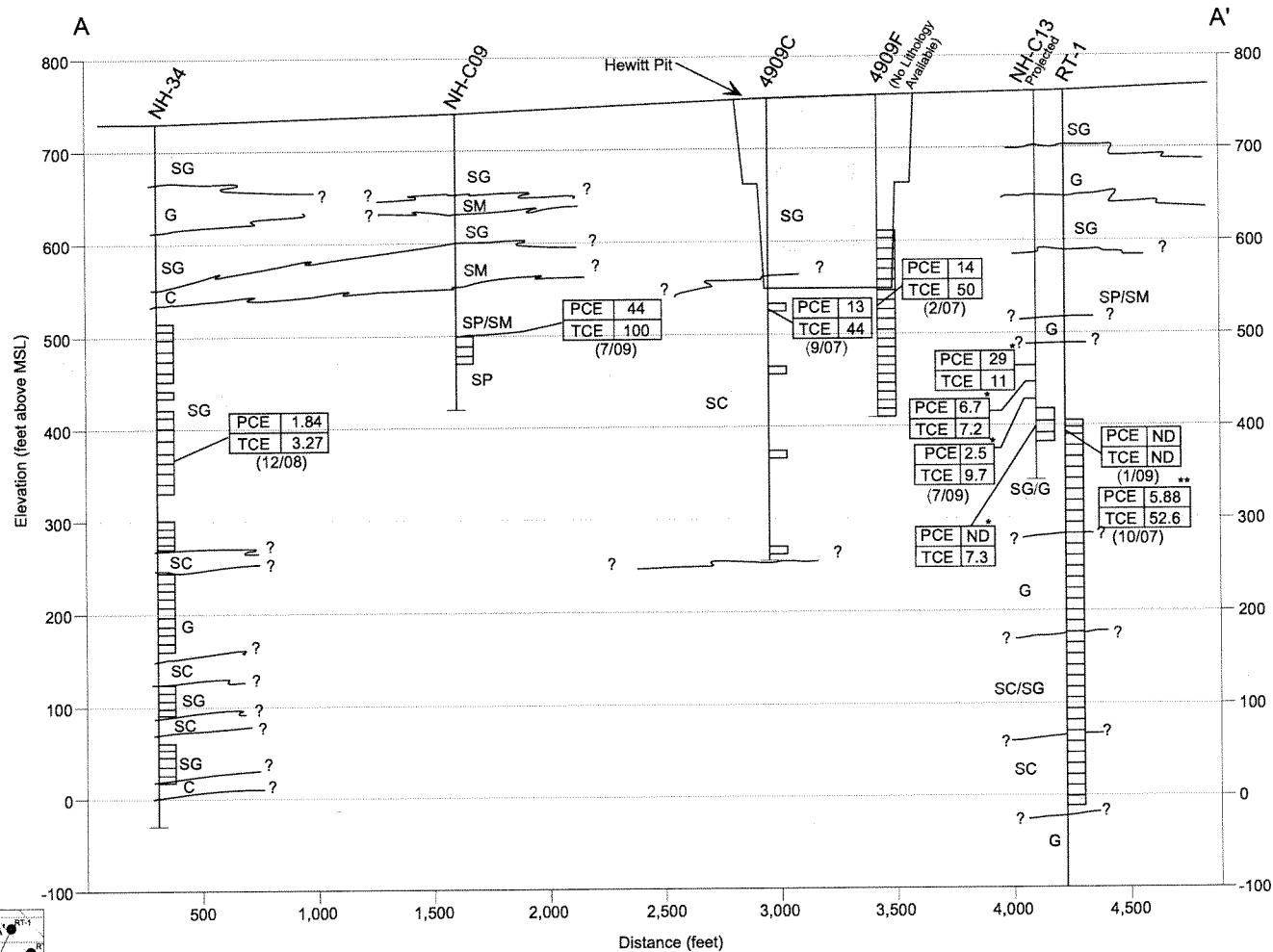


NORTH HOLLYWOOD OPERABLE UNIT

Distribution of 1,4-Dioxane in
NHOU Groundwater
Depth Region 1

Figure 8





MWH

NORTH HOLLYWOOD OPERABLE UNIT
NORTH HOLLYWOOD, CALIFORNIA

CROSS SECTION A-A'

FIGURE 10

Hewitt Pit Ground Water Data (µg/L)

	4899 (Upgradient)		4909C (Downgradient)		4909F (Downgradient)	
	PCE	TCE	PCE	TCE	PCE	TCE
11/08/84	3	--	--	--	--	--
02/27/87	200	45	6	71	--	--
04/04/88	2	<1	<1	<1	<1	<1
11/22/95	--	--	--	--	22	24
07/20/06	4.1	<1	--	--	23	74
10/27/06	--	--	--	--	21	65
11/16/06	4.6	<1	--	--	--	--
02/01/07	5.2	<1	--	--	14	50
09/05/07	--	--	13	44	--	--
02/15/11	5.6	<1	--	--	8.8	30

Sources:

Law Environmental Inc., 1988. SWAT Report for Hewitt Landfill. June 6.

CDM, 2007. February 2007 Groundwater Monitoring Report. April.

USEPA, 2011. SFV Groundwater Database. December.

